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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/690,738 | 10/21/2003 | Yun He | 021288-002010US | 6364 |

20350 7590 11/04/2004

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EXAMINER

DESAI, RITA J

| | |
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| ART UNIT | PAPER NUMBER |
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1625

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/690,738

Applicant(s)

HE ET AL.

Examiner

Rita J. Desai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 9-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8 in part , drawn to compounds and pharmaceutical compositions where in n is 1 and R1-R7 are non-hetero ring containing, classified in class 546 subclass 79 .
- II. Claims 1-8 in part , drawn to compounds and pharmaceuticals wherein n is 2-4, R1-R7 are non-hetero ring containing . A further election of a single disclosed species is required, classified in class 546 and various subclasses.
- III . Claims 1-8 in part , drawn to compounds and pharmaceuticals wherein at least one of R1-R7 is a heterorign containing, classified in various classes and subclasses. A further election of a single disclosed species is required.
- IV. Claims 9-17 , drawn to method of treating , classified in class 514 and various subclasses.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have a different core . The variables n along with R1-R7 being various hetero and non – hetero groups gives rise to numerous permutations and combinations and a different core.

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Inventions I-III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case there are several pharmaceuticals which are used to inhibit HIV in a cell.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II-IV, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Jeffry Mann on 10/27/04 a provisional election was made with traverse to prosecute the invention of group I, claim 1-8 in part drawn to compounds and pharmaceutical compositions where n is 1 and R1-R7 are non-hetero ring containing, classified in class 546 subclass 79.

Applicants further elected of compound 5 in figure 1B.

Affirmation of this election must be made by applicant in replying to this Office action. Claim 9-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

However if applicants elect one of the groups drawn to the compounds and if these are found to be allowable then the method of treating claims limited in scope to the elected compounds will be rejoined .

If applicant 's traverse on the grounds that the inventions are not patentably distinct, applicants should submit evidence or identify such evidence now of record showing the groups to be obvious variants or clearly admit on the record that this is the case. In either instance if the examiner finds one of the inventions unpatentable over the prior art , the evidence or admission may be used in a rejection under 35 USC 103 of the other invention.

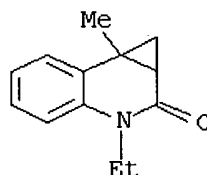
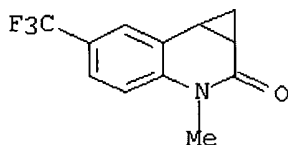
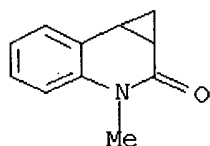
Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by FR 4390 Love Bernard.

The Caplus English Abstract 67:120195 discloses the compound

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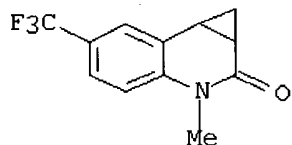
These read on the compounds of the invention when R1-R4 are H or a substituted alkyl R5 is a H or an alkyl and R7 is an alkyl and n is 1.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Loev B et al

II 1-Methyl-3,4-methylene-3,4-dihydroquinolin-2-one(s). Derivatives of a new
ring system, the 1H-cyclopropa[c]quinolines
AU Loev, B.; Kormendy, Minerva F.; Snader, K. M.

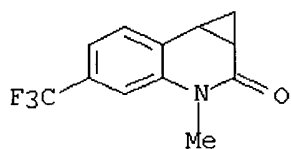
The english abstract of the reference in Caplus discloses

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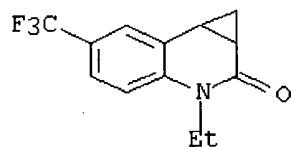
RN 1023-32-1 CAPLUS

CN 2H-Cyclopropa[c]quinolin-2-one, 1,1a,3,7b-tetrahydro-3-methyl-5-(trifluoromethyl)- (7CI, 8CI) (CA INDEX NAME)



RN 1027-09-4 CAPLUS

CN 2H-Cyclopropa[c]quinolin-2-one, 3-ethyl-1,1a,3,7b-tetrahydro-6-(trifluoromethyl)- (7CI, 8CI) (CA INDEX NAME)



These compounds read on the compounds of claim 1 wherein R7 is an alkyl, and one of R3 or R2 is an alkyl.

Conclusion

The claims 1-8 are not allowable.

WO 2001077100 Arnold Eric P et al, teaches a similar compound but the R2 is different .

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita J. Desai whose telephone number is 571-272-0684. The examiner can normally be reached on Monday - Friday, 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rita J. Desai
Primary Examiner
Art Unit 1625

R.D.
October 28, 2004

RJ Desai
10/28/04